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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/025,208

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Stephen H. Redington

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EXAMINER

PATEL, JAY P

ART UNIT

PAPER NUMBER

2666

DATE MAILED: 01/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/025,208

Applicant(s)

REDINGTON, STEPHEN H.

Examiner

Jay P. Patel

Art Unit

2666

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 44-54 is/are allowed.
- 6) ☒ Claim(s) 1,2,18,26 and 27 is/are rejected.
- 7) ☒ Claim(s) 3-17,19-25 and 28-43 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 18 and 26-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bartelme (US Patent 6744746 B1) further in view of Kahveci (US Patent 6973037 B1).

3. In regards to claim 1 and 26, Bartelme teaches a first and second bit streams and an insertion circuit for combining the first and second bit streams into a time division multiplexed (TDM) output bit stream, the first bit stream being a TDM input bit stream, the TDM input and output bit streams being divisible into frames, each frame including plural channels, the second bit stream being an unframed stream of bit sequential data (BSD), wherein the insertion circuit is adapted to insert bits from the second bit stream into at least one channel of the first bit stream. In figure 5, it is disclosed that the data transmitted included channel trunking and control data, data communications data, and digitized voice data that are all interleaved within the data packets (see column 5, lines 33-36). The data communications data and digitized voice data constitute a first bit stream is time division multiplexed (see column 5, lines 36-42).

Bartelme fails to teach a control interleaver for interleaving control information with the BSD wherein the control information specifically includes bandwidth allocation

information between the TDM input and the BSD. Kahveci teaches the above-mentioned limitation. Kahveci discloses in figure 3 that an open D channel can be used to allow communication of bandwidth allocation control protocol messages (see column 5, lines 28-32).

Therefore, it would have been obvious to one skilled in the art at the time the invention was made to combine the data transmission method disclosed by Bartelme with the bandwidth allocation procedure disclosed by Kahveci. The proper motivation comes from Kahveci where it is stated, "an object of the present invention is to provide a system and method for dynamically allocation bandwidth based on demand" (column 2, lines 63-65).

In regards to claims 2 and 27, Bartelme teaches that the control data and digitized voice data are interleaved within the data packets (see column 5, lines 33-36).

In regards to claim 18, Bartelme teaches the channel trunking data is also interleaved within the data packets (see column 5, lines 33-36).

#### ***Allowable Subject Matter***

4. Claims 3-17, 19-25 and 28-43 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 44-54 are allowed.

Art Unit: 2666

6. In regards to claim 44, the prior art made of record either individually or in combination, fails to teach an inverse multiplexer for separating data in the BSD channels into a primary BSD output bit stream and an auxiliary BSD output bit stream based on the usage state information and a modulus value indication an allocation of available BSD bandwidth between the primary and auxiliary BSD streams.

7. In regards to claim 48, the prior art made of record either individually or in combination, fails to teach separating data in the BSD channels into a primary BSD output bit stream and an auxiliary BSD output bit stream based on the usage state information and a modulus value indication an allocation of available BSD bandwidth between the primary and auxiliary BSD streams.

8. In regards to claim 52, the prior art made of record either individually or in combination, fails to teach controlling the throughput of the first or second channel by matching the real time data input to the loop transmission rate via a control channel.

9. In regards to claim 54, the prior art made of record either individually or in combination, fails to teach interleaving control information with the BSD wherein the control information included the usage state information and a modulus value indicating an allocation of available BSD bandwidth between the primary and auxiliary BSD streams and separating data in the BSD channels into a primary BSD output bit stream and an auxiliary BSD output bit stream based on the usage state information and a modulus value indication an allocation of available BSD bandwidth between the primary and auxiliary BSD streams.

**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jay P. Patel whose telephone number is (571) 272-3086. The examiner can normally be reached on M-F 9:00 am - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on (571) 272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPP 11/5/06  
Jay P. Patel  
Assistant Examiner  
Art Unit 2666



DANG TON  
PRIMARY EXAMINER